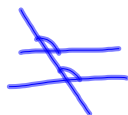
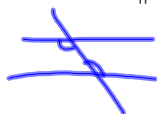


3.3 Prove Lines are Parallel

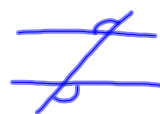
Postulate 16

Corresponding Angle ConverseIf corresponding \angle s are \cong , then the lines are \parallel .

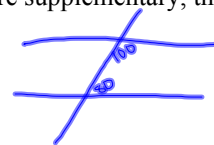
Theorem 3.4

Alternate Interior Angle ConverseIf alternate interior \angle s are \cong , then the lines are \parallel .

Theorem 3.5

Alternate Exterior Angle ConverseIf alternate exterior \angle s are \cong , then the lines are \parallel .

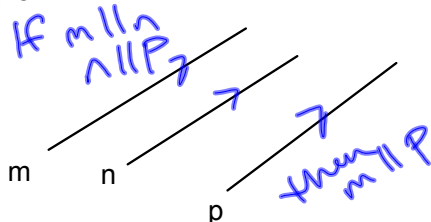
Theorem 3.6

Consecutive Interior Angle ConverseIf same-side interior \angle s are supplementary, then the lines are \parallel .

Oct 15-11:07 AM

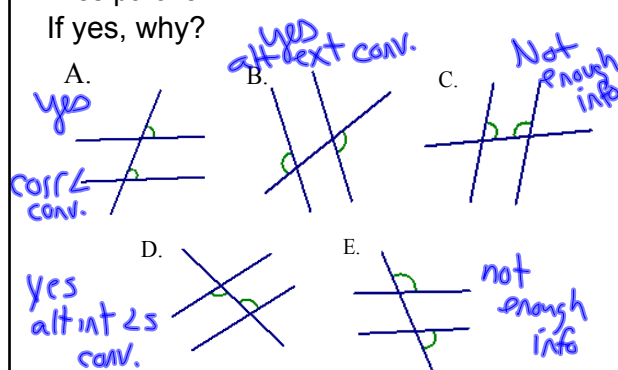
Oct 15-11:12 AM

Theorem 3.7--Transitive Property of Parallel lines--If 2 lines are parallel to the same line, then they are parallel to each other



Is there enough information to prove the lines parallel?

If yes, why?



Oct 24-10:02 AM

Oct 15-11:13 AM

F.

yes
cor. ∠s
conv.

G.

No

H.

yes
cons. int
∠s conv.

I.

yes
cons. int
∠s conv.

Oct 15-11:23 AM

Find the value for x and y, so that the lines are parallel.

$y = 38$
 $x = 142$

$\frac{180}{-38}$

$y = 95$
 $x = 85$

Oct 15-11:23 AM

$6x + 4x = 180$
 $10x = 180$
 $x = 18$

$y = 50$
 $6x = 55$
 $z = 50$

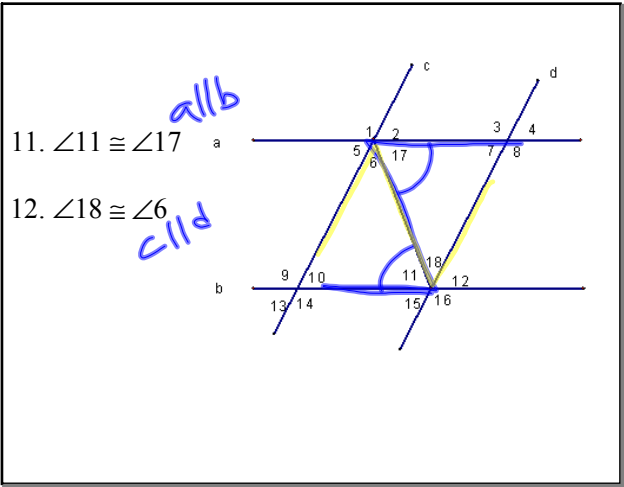
Oct 15-11:29 AM

Which lines are parallel based on the given information?

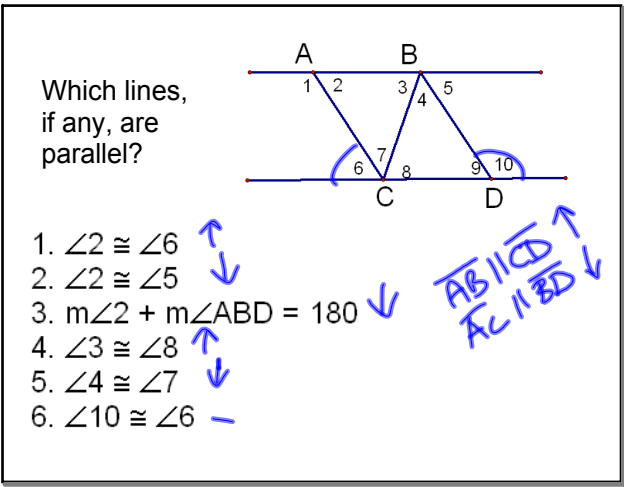
a and b \uparrow OR c and d \downarrow OR neither \leftrightarrow

1. $\angle 1 \cong \angle 9$ all b
2. $\angle 13 \cong \angle 15$ c || d
3. $\angle 7 \cong \angle 12$ a || b
4. $\angle 3 \cong \angle 16$ a || b
5. $\angle 1 \cong \angle 16$ N
6. $m\angle 8 + m\angle 12 = 180$ a || b
7. $m\angle 2 + m\angle 3 = 180$ b || d
8. $m\angle 10 + m\angle 15 = 180$ N
9. $\angle 13 \cong \angle 12$ c || d
10. $\angle 1 \cong \angle 6$ N

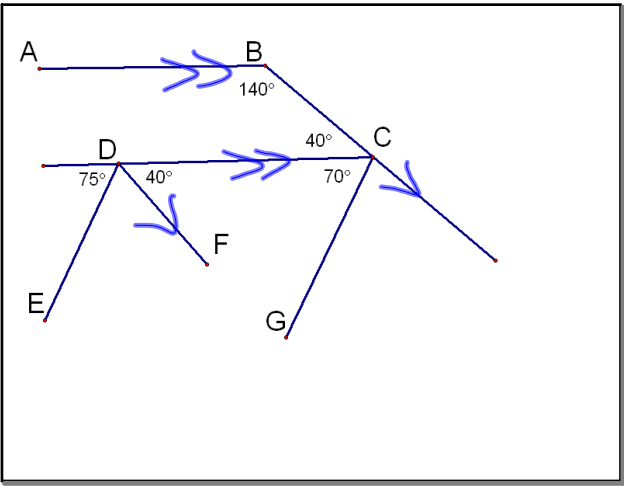
Oct 15-11:30 AM



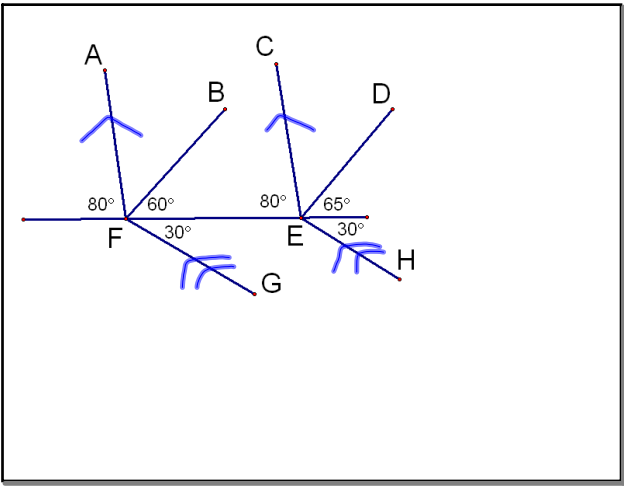
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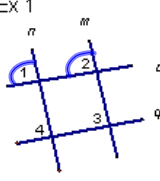
Oct 24-10:10 AM



Oct 24-10:10 AM

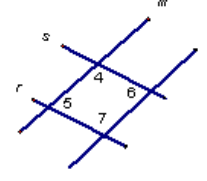


Oct 24-10:11 AM

<p><u>S.</u></p> <p>① $\angle 1 \cong \angle 2$</p> <p>② $m \parallel n$</p> <p>③ $\angle 3 \cong \angle 4$</p>	<p><u>R.</u></p> <p>① Given</p> <p>② Corr \angles Conv.</p> <p>③ Corr \angles Postulate</p>	<p>Ex 1</p>  <p>Given: $\angle 1 \cong \angle 2$ Prove: $\angle 4 \cong \angle 3$</p>
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Oct 24-10:11 AM

Ex 2:



Given: $\angle 4 \cong \angle 7$
 $l \parallel m$
Prove: $r \parallel s$

Oct 24-10:11 AM

HW
p165-168
10-15, 17, 19-21, 26-28, 34

Oct 24-10:12 AM